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EXAMINER

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ART UNIT PAPER NUMBER

2184

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Please find below and/or attached an Office communication concerning this application or proceeding.

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# Office Action Summary

Application No.

09/706,960

Applicant(s)

CLUFF ET AL.

Examiner

Gabriel L. Chu

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 06 November 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 12-23 are rejected under 35 U.S.C. 102(e) as being anticipated by US 6145088 to Stevens. Referring to claims 12 and 17, Stevens discloses detecting if an operating portion of the system has experienced a fault (From the abstract (with emphasis), "establishing a communications link from the local computer containing **the storage device requiring recovery** of data to a remote data recovery computer operated by a technician."); accessing a backup device to enable communication over a network (Referring to line 55 of column 2 (with emphasis), "establishing a communications link via communications hardware from a local computer having a storage device requiring recovery of data to a remote data recovery computer operated by a technician".); and retrieving data to recover the system over the network (From line 10 of column 3, "In the preferred embodiment, the remote data recovery operating system is sufficiently small to operate directly from its own distribution floppy disk, allowing data recovery operations to proceed in the absence of the normal bootable operating system. It is capable of loading data recovery utility software from either that

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same distribution floppy disk, or from the remote technician's comparatively vast library of such software, via the communications hardware. In the preferred embodiment, upon loading, the bootable remote data recovery operating system presents a limited number of choices to the local user, allowing the user to input information regarding the nature of the user's data recovery needs and the user's personal data. Once this information has been input, the local user can confirm his intent to have the operating system establish contact with the remote technician via attached communications hardware. This contact can commence the data recovery operation immediately, or, alternatively, may queue the request such that the data recovery operation proceeds at such time as the data recovery technician has had time to review the request and prepare for the data recovery operation. Once the data recovery operation commences, all control of the local computer is released to the remote data recovery technician. The technician is then able to operate the local computer as though the technician were seated directly in front of it, having access to all data recovery utility software which is available at the technician's site, as well as any which might optionally reside on the data recovery operating system diskette.”).

Referring to claim 13, Stevens discloses loading a backup software routine from the backup device (From line 65 of column 2, “In one embodiment, the principles of the present invention are achieved by implementing a bootable data recovery operating system which has sufficient functionality to allow communications via communications hardware to the remote technician. The remote technician is further equipped with specialized remote control software which allows communications with the computer

running the bootable data recovery operating system via communications hardware. Once the computer under recovery and the remote computer are in communication, data recovery operations on the computer under recovery can proceed under complete control of the remote technician.").

Referring to claim 14, Stevens discloses the backup software routine comprises a browser, the method further comprising executing the browser to access the network to retrieve the data (From line 17 of column 3, "In the preferred embodiment, upon loading, the bootable remote data recovery operating system presents a limited number of choices to the local user, allowing the user to input information regarding the nature of the user's data recovery needs and the user's personal data.").

Referring to claim 15, Stevens discloses executing the backup software routine to access the network (From line 65 of column 2, "In one embodiment, the principles of the present invention are achieved by implementing a bootable data recovery operating system which has sufficient functionality to allow communications via communications hardware to the remote technician. The remote technician is further equipped with specialized remote control software which allows communications with the computer running the bootable data recovery operating system via communications hardware. Once the computer under recovery and the remote computer are in communication, data recovery operations on the computer under recovery can proceed under complete control of the remote technician.").

Referring to claim 16, Stevens discloses retrieving the data from a backup storage system coupled to the network (From line 10 of column 3, "In the preferred

embodiment, the remote data recovery operating system is sufficiently small to operate directly from its own distribution floppy disk, allowing data recovery operations to proceed in the absence of the normal bootable operating system. It is capable of loading data recovery utility software from either that same distribution floppy disk, or from the remote technician's comparatively vast library of such software, via the communications hardware. In the preferred embodiment, upon loading, the bootable remote data recovery operating system presents a limited number of choices to the local user, allowing the user to input information regarding the nature of the user's data recovery needs and the user's personal data. Once this information has been input, the local user can confirm his intent to have the operating system establish contact with the remote technician via attached communications hardware. This contact can commence the data recovery operation immediately, or, alternatively, may queue the request such that the data recovery operation proceeds at such time as the data recovery technician has had time to review the request and prepare for the data recovery operation. Once the data recovery operation commences, all control of the local computer is released to the remote data recovery technician. The technician is then able to operate the local computer as though the technician were seated directly in front of it, having access to all data recovery utility software which is available at the technician's site, as well as any which might optionally reside on the data recovery operating system diskette." Further, see figure 2.).

Referring to claim 18, Stevens discloses booting from a backup storage device instead of the main storage device if the system has experienced a fault (From line 10

of column 3, "In the preferred embodiment, the remote data recovery operating system is sufficiently small to operate directly from its own distribution floppy disk, allowing data recovery operations to proceed in the absence of the normal bootable operating system. It is capable of loading data recovery utility software from either that same distribution floppy disk, or from the remote technician's comparatively vast library of such software, via the communications hardware."); and using the backup storage device to enable communications over a network to retrieve data to recover the system (From the abstract, "establishing a communications link from the local computer containing the storage device requiring recovery of data to a remote data recovery computer operated by a technician").

Referring to claim 19, Stevens discloses loading a routine from the backup storage device to enable the network communication (From line 65 of column 2, "In one embodiment, the principles of the present invention are achieved by implementing a bootable data recovery operating system which has sufficient functionality to allow communications via communications hardware to the remote technician. The remote technician is further equipped with specialized remote control software which allows communications with the computer running the bootable data recovery operating system via communications hardware. Once the computer under recovery and the remote computer are in communication, data recovery operations on the computer under recovery can proceed under complete control of the remote technician.").

Referring to claim 20, Stevens discloses loading the routine comprises loading a browser (From line 17 of column 3, "In the preferred embodiment, upon loading, the

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bootable remote data recovery operating system presents a limited number of choices to the local user, allowing the user to input information regarding the nature of the user's data recovery needs and the user's personal data.").

Referring to claim 21, Stevens discloses a main storage device (Referring to line 55 of column 2 (with emphasis), "establishing a communications link via communications hardware from a local computer having a **storage device** requiring recovery of data to a remote data recovery computer operated by a technician".); a backup storage device, and a routine executable to boot from the backup storage device in case of a system fault (From line 10 of column 3, "In the preferred embodiment, the remote data recovery operating system is sufficiently small to operate directly from its own distribution floppy disk, allowing data recovery operations to proceed in the absence of the normal bootable operating system. It is capable of loading data recovery utility software from either that same distribution floppy disk, or from the remote technician's comparatively vast library of such software, via the communications hardware."), the backup storage device enabling access over a network to retrieve data from a network node to recover the system (From line 65 of column 2, "In one embodiment, the principles of the present invention are achieved by implementing a bootable data recovery operating system which has sufficient functionality to allow communications via communications hardware to the remote technician. The remote technician is further equipped with specialized remote control software which allows communications with the computer running the bootable data recovery operating system via communications hardware. Once the computer under



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recovery and the remote computer are in communication, data recovery operations on the computer under recovery can proceed under complete control of the remote technician." Further, from From line 10 of column 3, "In the preferred embodiment, the remote data recovery operating system is sufficiently small to operate directly from its own distribution floppy disk, allowing data recovery operations to proceed in the absence of the normal bootable operating system. It is capable of loading data recovery utility software from either that same distribution floppy disk, or from the remote technician's comparatively vast library of such software, via the communications hardware. In the preferred embodiment, upon loading, the bootable remote data recovery operating system presents a limited number of choices to the local user, allowing the user to input information regarding the nature of the user's data recovery needs and the user's personal data. Once this information has been input, the local user can confirm his intent to have the operating system establish contact with the remote technician via attached communications hardware. This contact can commence the data recovery operation immediately, or, alternatively, may queue the request such that the data recovery operation proceeds at such time as the data recovery technician has had time to review the request and prepare for the data recovery operation. Once the data recovery operation commences, all control of the local computer is released to the remote data recovery technician. The technician is then able to operate the local computer as though the technician were seated directly in front of it, having access to all data recovery utility software which is available at the technician's site, as well as any which might optionally reside on the data recovery operating system diskette.").

Referring to claim 22, Stevens discloses the backup storage device comprises a network access routine that is loadable for execution in the system, the network access routine to enable access over the network (From line 65 of column 2, "In one embodiment, the principles of the present invention are achieved by implementing a bootable data recovery operating system which has sufficient functionality to allow communications via communications hardware to the remote technician. The remote technician is further equipped with specialized remote control software which allows communications with the computer running the bootable data recovery operating system via communications hardware. Once the computer under recovery and the remote computer are in communication, data recovery operations on the computer under recovery can proceed under complete control of the remote technician.").

Referring to claim 23, Stevens discloses the routine comprises a BIOS routine (From line 25 of column 7, "The Data Recovery Application DRA programs 300 interface with the local RDR application 308, through a set of application program interfaces (API's) 310 which interface direct with the basic input/output subsystem (BIOS) 360 and/or the Operating System 340. The local RDR application 308 effectively redirects, or "hooks" these API's in order to allow remote control operation of the DRA 300. Additionally, the local RDR application 308 offers private API's which allow "RDR aware" applications to interface directly with the communications subsystem 312 by providing a "pass through" to "hooked" BIOS functions 316 and OS functions 314. This permits "RDR aware" applications to bypass the redirection of functions, thus enabling an interface to the operator of the local RDR computer 20, as well as the control of the

communications subsystem. The remainder of the local RDR application 308 contains communications subsystem code 318 and the local RDR application code 320. A flow diagram of the local RDR application code 320 is shown in FIG. 4.”).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6145088 to Stevens in view of US 6195695 to Cheston et al. Referring to claim 1, Stevens discloses an interface to a network (Referring to line 55 of column 2 (with emphasis), “establishing **a communications link** via communications hardware from a local computer having a storage device requiring recovery of data to a remote data recovery computer operated by a technician”.); a first operational element to perform one or more tasks in the system (Referring to line 55 of column 2 (with emphasis), “establishing a communications link via communications hardware from a local computer having **a storage device** requiring recovery of data to a remote data recovery computer operated by a technician”.); and a backup device to enable access of the network through the interface in response to failure of the first operational element (From line 65 of column 2, “In one embodiment, the principles of the present invention are achieved by implementing a bootable data recovery operating system which has sufficient functionality to allow communications via communications hardware to the

remote technician. The remote technician is further equipped with specialized remote control software which allows communications with the computer running the bootable data recovery operating system via communications hardware. Once the computer under recovery and the remote computer are in communication, data recovery operations on the computer under recovery can proceed under complete control of the remote technician.”). Although Stevens does not specifically disclose the system comprises a storage element containing a flag to indicate if a fault has occurred with the first operational element, and activating the backup in response to the flag, this is known in the art. An example of this is shown by Cheston et al., from figure 2, elements 55 and 60. A person of ordinary skill in the art at the time of the invention would have been motivated to activate a redundancy OS in case of failure of the primary because, from the abstract of Cheston et al. “This allows the system to continue functioning after a crash without the necessity to find a new copy of the application and operating system from outside the computer.”

Referring to claim 2, Stevens discloses the first operational element comprises a disk drive (From line 9 of column 6, “The local storage device 26 might be internal or external and might take on varying technologies. The storage device might be a conventional hard drive such as of the Winchester technology, a laser disk, a CD-ROM, etc.”).

Referring to claim 3, Stevens discloses the backup device comprises a backup storage element containing a backup routine adapted to perform communications through the interface to the network (From line 65 of column 2, “In one embodiment, the

principles of the present invention are achieved by implementing a bootable data recovery operating system which has sufficient functionality to allow communications via communications hardware to the remote technician. The remote technician is further equipped with specialized remote control software which allows communications with the computer running the bootable data recovery operating system via communications hardware. Once the computer under recovery and the remote computer are in communication, data recovery operations on the computer under recovery can proceed under complete control of the remote technician.”).

Referring to claim 4, Stevens discloses the backup routine comprises a browser (From line 17 of column 3, “In the preferred embodiment, upon loading, the bootable remote data recovery operating system presents a limited number of choices to the local user, allowing the user to input information regarding the nature of the user's data recovery needs and the user's personal data.”).

Referring to claim 5, Stevens discloses the first operational element comprises a first disk drive (Referring to line 55 of column 2 (with emphasis), “establishing a communications link via communications hardware from a local computer having a **storage device** requiring recovery of data to a remote data recovery computer operated by a technician”.), and wherein the backup storage element comprises a second disk drive separate from the first disk drive (From line 10 of column 3, “In the preferred embodiment, the remote data recovery operating system is sufficiently small to operate directly from its own distribution floppy disk, allowing data recovery operations to proceed in the absence of the normal bootable operating system. It is capable of

loading data recovery utility software from either that same distribution floppy disk, or from the remote technician's comparatively vast library of such software, via the communications hardware.").

Referring to claim 6, Stevens discloses the second disk drive has a smaller storage capacity than the first disk drive (From line 10 of column 3, "In the preferred embodiment, the remote data recovery operating system is sufficiently small to operate directly from its own distribution floppy disk, allowing data recovery operations to proceed in the absence of the normal bootable operating system. It is capable of loading data recovery utility software from either that same distribution floppy disk, or from the remote technician's comparatively vast library of such software, via the communications hardware." Wherein the first device is a hard disk drive and the second device is a floppy disk drive.).

Referring to claim 7, Stevens discloses the backup storage element comprises non-volatile memory (From line 10 of column 3, "In the preferred embodiment, the remote data recovery operating system is sufficiently small to operate directly from its own distribution floppy disk, allowing data recovery operations to proceed in the absence of the normal bootable operating system. It is capable of loading data recovery utility software from either that same distribution floppy disk, or from the remote technician's comparatively vast library of such software, via the communications hardware.").

Referring to claim 8, Cheston et al. disclose the first operational element comprises a disk drive having plural partitions, and wherein the backup storage element

comprises one of the partitions (From the abstract, "This recovery is accomplished by storing, preferably at the initial program loading, two copies of the application (and the operating system, if desired) in different segments of a partitioned storage, one copy as a working copy and a second copy as an archive or backup copy.").

Referring to claim 9, Stevens discloses the backup storage element comprises a removable disk drive (From line 10 of column 3, "In the preferred embodiment, the remote data recovery operating system is sufficiently small to operate directly from its own distribution floppy disk, allowing data recovery operations to proceed in the absence of the normal bootable operating system. It is capable of loading data recovery utility software from either that same distribution floppy disk, or from the remote technician's comparatively vast library of such software, via the communications hardware.").

Referring to claim 10, Stevens discloses the backup device to retrieve user data and software over the network to recover the system (From line 10 of column 3, "In the preferred embodiment, the remote data recovery operating system is sufficiently small to operate directly from its own distribution floppy disk, allowing data recovery operations to proceed in the absence of the normal bootable operating system. It is capable of loading data recovery utility software from either that same distribution floppy disk, or from the remote technician's comparatively vast library of such software, via the communications hardware. In the preferred embodiment, upon loading, the bootable remote data recovery operating system presents a limited number of choices to the local user, allowing the user to input information regarding the nature of the user's data

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recovery needs and the user's personal data. Once this information has been input, the local user can confirm his intent to have the operating system establish contact with the remote technician via attached communications hardware. This contact can commence the data recovery operation immediately, or, alternatively, may queue the request such that the data recovery operation proceeds at such time as the data recovery technician has had time to review the request and prepare for the data recovery operation. Once the data recovery operation commences, all control of the local computer is released to the remote data recovery technician. The technician is then able to operate the local computer as though the technician were seated directly in front of it, having access to all data recovery utility software which is available at the technician's site, as well as any which might optionally reside on the data recovery operating system diskette.”).

5. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 6145088 to Stevens in view of US 6195695 to Cheston et al. as applied to claim 1 above, and further in view of US 5469573 to McGill, III et al. Referring to claim 11, Stevens discloses the first operational element comprises a storage element (Referring to line 55 of column 2 (with emphasis), “establishing a communications link via communications hardware from a local computer having a **storage device** requiring recovery of data to a remote data recovery computer operated by a technician”).).

Although Stevens in view of Cheston et al. does not specifically disclose the backup device to retrieve an image of the storage element to recover the storage element to its operational state, this is known in the art. An example of this is shown by McGill, III et al. from line 56 of column 1, “Data backup systems are known which restore high



capacity hard disks from a digital image of that hard disk, i.e., on a media bit-mapped basis. This type of image restoration may be able to restore an operating system to fixed storage media since the operating system is simply some portion of the total image being restored." A person of ordinary skill in the art at the time of the invention would have been motivated to recover from an image because, from line 58 of column 1, "This type of image restoration may be able to restore an operating system to fixed storage media since the operating system is simply some portion of the total image being restored."

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 5142680 to Ottman et al.

US 5455933 to Schieve et al.

US 5615330 to Taylor

US 5627964 to Reynolds et al.

US 5765151 to Senator

US 5805882 to Cooper et al.

US 5905888 to Jones et al.

US 6016553 to Schneider et al.

US 6173417 to Merrill

US 6314532 to Daudelin et al.

US 6378086 to Crowley et al.

US 6393585 to Houha et al.

US 6535998 to Cabrera et al.


US 2002/0042892 to Gold

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gabriel L. Chu whose telephone number is (703) 308-7298. The examiner can normally be reached on weekdays with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert W. Beausoliel, Jr. can be reached on (703) 305-9713. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

gc  
August 3, 2003

  
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